

# **SIRS ANALYSIS\*\*\*\*\***

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## 1 Introduction

The field of mathematical biology is one that is quite old. As early as the 12th century, Fibonacci was able to

## 2 SIR Model

## 3 SIRS Model

### 3.1 Death and Population Removal

## 4 Effects of Randomness

### 4.1 Random Impulse into Susceptible Population

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### 4.4 Random Effects on Infection and Recovery Rates